FCC 13-39

Before the
Federal Communications
Commission Washington, D.C.
20554

In the Matter of	)	
	)	
Proposed Changes in the Commission's Rules	)	ET Docket No. 03-137
Regarding Human Exposure to Radiofrequency	)	
Electromagnetic Fields	)	
	)	
Reassessment of Federal Communications	)	ET Docket No. 13-84
Commission Radiofrequency Exposure Limits and	)	
Policies	)	
	)	

To: Office of the Secretary
Federal Communications Commission

In response to comments submitted 9/3/13 by CTIA – The Wireless Association

Comments Submitted By:

Consumers for Safe Cell Phones
Cynthia Franklin, President
520 Ridgeway Drive
Bellingham, WA 98225

Consumers for Safe Cell Phones is a 501C3 non-profit organization. I, Cynthia Franklin, attest that the following statements are true to the best of my knowledge.

Consumers for Safe Cell Phones submits the following comments in response to the September 3, 2013 submission by CTIA – The Wireless Association:

I. The supposed 50-fold safety factor does not protect the public from the known health risks associated with non-thermal effects from microwave radiation exposure

On page 12, the CTIA refers to comments made by the FCC in this NOI that imply that the incorporation of a fifty-fold safety factor "protects the public based on scientific consensus and allows for efficient and practical implementation of wireless services."

The entire premise upon which this 50-fold safety factor claim is made is an untested hypothesis. There is no scientific evidence that backing down to $1/50^{th}$ the SAR found to negatively impact the behavior of laboratory animals has anything to do with protecting humans from the known biological effects from exposure to microwave radiation. It is as if making assertions that the current FCC exposure standard, due to being $1/50^{th}$ less than the SAR observed to cause serious biological effects in rats – and making these assertions over and over – will somehow magically render them true.

Again, there is no proof that a 50-fold safety factor ensures protection to citizens from the known health effects of microwave exposure.

Very concerning is the fact that there have been hundreds of peer-reviewed, independently-funded studies showing negative biological effects at levels as much as 1,000 times below the current FCC exposure standard!

The FCC is wrong to continue to propagate the unproven hypothesis that the current standards are protective of public health due to incorporating a 50-fold safety factor; this is factually a baseless assertion that has nothing to do with protecting public health.

The CTIA states on page 12 that public health organizations', notable scientists' and biologists' claims of the existence of non-thermal effects are "controversial and unsubstantiated." Additionally, the CTIA claims that the FCC has determined "that the scientific literature does not support the existence of such 'non-thermal' effects."

This is false. Since 1999, the FCC has publicly acknowledged the existence of non-thermal effects from "relatively low levels of RF radiation".

OET's Bulletin 56 "Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields" (below) mentions knowledge of many scientific laboratories reporting effects from non-thermal levels of exposure including changes in the immune system, neurological effects, behavioral effects, evidence for a link between microwave exposure and the action of certain drugs and compounds, a "calcium efflux" effect in brain tissue….and effects on DNA:

OET BULLETIN 56
Fourth Edition
August 1999

Questions and Answers about Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields

WHAT BIOLOGICAL EFFECTS CAN BE CAUSED BY RF ENERGY?

"More recently, other scientific laboratories in North America, Europe and elsewhere have reported certain biological effects after exposure of animals ("in vivo") and animal tissue ("in vitro") to relatively low levels of RF radiation. These reported effects have included certain changes in the immune system, neurological effects, behavioral effects, evidence for a link between microwave exposure and the action of certain drugs and compounds, a "calcium efflux" effect in brain tissue (exposed under very specific conditions), and effects on DNA." (pg 8)

The FCC has been aware since 1999 that its exposure standard (by only considering the heating of tissue) is grossly inadequate in protecting public health. And, the FCC is aware that these reported effects occur at levels as much as 1,000 times below their current exposure standard.

Unfounded statements that a 50-fold safety factor protects the public from the known hazards of extremely low microwave exposure are scientifically baseless and wrong, and the FCC must stop propagating this known false and misleading statement.

The FCC is mandated to protect the public from these known non-thermal effects, and this is not happening. The FCC must take action immediately to promulgate rules to reassess the exposure guidelines based upon the known fact that extremely low levels of RF, levels as much as 1,000 times below the current standard, have been shown in hundreds of studies to cause troubling biological effects.

II. Body-worn usage is a safety issue and consumers must be informed to not wear or use cell phones directly against their bodies

On page 17, CTIA claims that there is no evidence that body-worn usage is a safety issue. This is not true. A recent study shows a direct correlation between the location of cancerous breast tumors and the wearing and using of a cell phone directly against the breast inside a bra (below):

Case Reports in Medicine
Volume 2013 (2013), Article ID 354682, 5 pages
http://dx.doi.org/10.1155/2013/354682

Accepted 19 August 2013

Multifocal Breast Cancer in Young Women with Prolonged Contact between Their Breasts and Their Cellular Phones

John G. West, Nimmi S. Kapoor, Shu-Yuan Liao, June W. Chen, Lisa Bailey, and Robert A. Nagourney

Abstract

Breast cancer occurring in women under the age of 40 is uncommon in the absence of family history or genetic predisposition, and prompts the exploration of other possible exposures or environmental risks. We report a case series of four young women—ages from 21 to 39—with multifocal invasive breast cancer that raises the concern of a possible association with nonionizing radiation of electromagnetic field exposures from cellular phones. ***All patients regularly carried their smartphones directly against their breasts in their brassieres for up to 10 hours a day, for several years, and developed tumors in areas of their breasts immediately underlying the phones.*** All patients had no family history of breast cancer, tested negative for BRCA1 and BRCA2, and had no other known breast cancer risks. Their breast imaging is reviewed, showing clustering of multiple tumor foci in the breast directly under the area of phone contact. Pathology of all four cases shows striking similarity; all tumors are hormone-positive, low-intermediate grade, having an extensive intraductal component, and all tumors have near identical morphology. These cases raise awareness to the lack of safety data of prolonged direct contact with cellular phones.

These young women did not have the opportunity to prevent this deadly disease as they had no way of knowing that it is potentially unsafe (i.e.; not compliant with safety standard) to wear or use their cell phones directly against their bodies. The separation distance warning that is required to appear in all user manuals as a condition of compliance with FCC testing guidelines is deceptively hidden in the fine print, in the technical/legal section typically at the backs of user manuals where consumers will be unlikely to read them.

III. Zero-spacing during compliance testing would simulate "real world" usage conditions

The CTIA on page 17 states that the FCC "evaluation criteria….should continue to be viewed as addressing all reasonable usage scenarios. CTIA….does not believe a zero-spacing measurement requirement would accurately mimic real usage or increase safety."

A zero-spacing testing requirement does indeed mimic real usage as consumers typically wear and use cell phones tucked in shirt pockets (with essentially zero separation from the radiating structures of the antennae). Phones are being tucked into waistbands and bras with the backs of phones against the skin (with zero separation) for 10 or more hours a day with potentially many hours of transmission time throughout the day – and receiving calls and texts - while the phone is connected to a Bluetooth or wired headset.

The disclosure to never wear or use a phone closer than the separation distance allowed at testing is a crucial consumer safety warning. As the GAO confirmed in their July 2012 report, because the FCC allows manufacturers to test phones held up to 1 inch away from the measuring device during compliance testing, consumers who simply use their phones as designed (in pockets) are at risk of being exposed to microwave emissions that can exceed the current FCC standard.

The FCC must require testing of cell phones in the manner they are typically used – directly against the body with zero separation. This is of utmost importance given the fact that the industry is NOT taking action to adequately inform consumers of this potentially unsafe (i.e. non-compliant) usage situation.

On page 18, the CTIA asserts, "A very heavy burden indeed should be upon those who seek to alter the Commission's approach to these issues with controversial science, changes to the testing standard, or opinionated and alarmist messaging premised on familiar but still unsubstantiated theories of harm."

In reality, the assumption that the current FCC standards are protective of human health is the most controversial, unsubstantiated theory of them all! And, yet, the industry publicizes this message over and over, with media, and even high level FCC officers parroting the message until it has been widely accepted. No one wants to believe otherwise; consumers love, and have become dependent upon, their wireless devices and the benefits to society are recognized by many of us health and consumer advocates. But, wide dissemination and acceptance of propaganda does not make it true.

Wireless consumer devices emit an IARC classified 2B carcinogen. It is obvious that the burden of proof should be upon the industry manufacturing and marketing these potentially harmful products to prove that they are safe.

IV. Industry-funded Interphone study showed increased risk of glioma after 10 years of use at an average of 30 minutes a day

On page 21, the CTIA claims that the 2010 Interphone study "found no overall increased risk of glioma, meningioma or acoustic neuroma with mobile phone use of more than 10 years." In this instance, the CTIA is attempting to re-write history. Of course, they are aware that the conclusion stated, "There were suggestions of an increased risk of glioma at the highest exposure levels." And, the CTIA is very much aware that these "highest exposure levels" were defined as 10 years for an average exposure of 30 minutes a day. Hardly considered "heavy user" by today's standards!

V. Currently, there is no scientific basis on which to rule out any possibility of a health risk

On page 25, the CTIA admits that there is "no scientific basis on which to absolutely rule out any possibility of [a risk to human health]." By failing to take precautionary action in the face of widespread use of potentially unsafe consumer products, the risk is that our country could be facing a public health crisis that would place an enormous economic and logistical burden upon our health care system, not to mention the unimaginable societal costs. Therefore, the FCC MUST rule on the side of caution as the stakes are too high to continue to take no action in the face of potential harm.

VI. The FDA states that additional research is warranted to address potential health risks to children

Pages 36 and 37 discuss the FDA's website on "Radiation-Emitting Products." The CTIA's "cherry-picking" of FDA's statements -attempting to show there is no proof of harm- failed to include the comment under "Current Research Results" that says, "…***still, there is consensus that additional research is warranted to address gaps in knowledge such as the effects of cell phone use over the long term and on pediatric populations***." Clearly, the FDA's position is that there does not exist enough research on children to rule out health risks from wireless usage. It is reckless and misleading for the CTIA, by omission, to imply that the FDA has no concerns about health risks from wireless use, especially as it relates to children.

VII. Scientific evidence exists to show that using a phone with zero separation results in increased risk of negative health impacts

On page 56, the CTIA comments again that "no scientific evidence suggests that failing to maintain a specified separation poses a health risk." In addition to the above-mentioned study showing a correlation between wearing a cell phone in a bra directly against breast tissue and the location of cancerous tumors, there also exist numerous

studies (presented in previous submissions in this proceeding) on damage to, and reduction of, sperm for men who use and carry cell phones in their pants pocket. It is wrong to state that there is no scientific evidence suggesting that "failing to maintain a specified separation poses a health risk."

Once again, CTIA uses the 50-fold safety factor as a reason that consumers should have no worries if they are exposed to SAR levels that exceed the current standard. However, as pointed out earlier in this submission, as well as by many other health advocates and experts – hundreds of peer-reviewed, independently-funded studies show DNA damage and other biological effects at as much as 1,000 times below the current standard.

There is NO research proving that exposure to microwave radiation 50 times below the current FCC standard ensures safety. And, there is no research proving that SAR is a valid method of testing as it only takes into account the rate of heating of tissue.

The burden of proof is on industry to prove that exposure levels that exceed the standard are safe. And, until that time, it is irresponsible for the CTIA to make unfounded claims that it is safe for consumers to be exposed to SAR levels that exceed the current standard.

VIII. CTIA's former scientific expert says there is documented genetic damage at non-thermal exposure levels much lower than current FCC standards

It is important for the Commission to consider the words and expert opinion of a former CTIA scientist who was hired in the 1990s to head up CTIA's program to study the potential negative health effects from cell phones. This industry insider was fired when he brought forth evidence to CTIA executives that the microwave emissions from cell phones did in fact cause genetic damage and other biological effects at non-thermal levels, much lower than those considered "safe" by the FCC.

From a March 2010 letter to the Maine legislature, Dr. George Carlo (who also has a law background) and who has since become an outspoken industry "whistle-blower" wrote:

"…In both our federal and state legal systems, it is not the responsibility of consumers to prove that cell phones are dangerous in order to elicit protective measures from government and industry. ***The product liability litigation and the regulatory systems underscore that the legal, moral and ethical burden of proof has been and continues to be on the cell phone industry to guarantee that their products that have been introduced into commerce are safe. To this point in time, the cell phone industry has failed to meet their burden of safety proof on any count. In fact, existing data show danger, not safety.***

· During the 1990s', the program I headed which was funded by the mobile phone industry was intended to fill the safety study data gaps caused by the FDA's error of

*omission in 1984. Our work was specifically designed to meet all FDA standards for safety studies, including Good Laboratory Practices and other assurances of scientific rigor. As such, that work remains the only legitimate safety data on cell phones upon which a direct safety assessment can be made. Among the more than fifty studies completed in our program, were results indicating: genetic damage in human blood exposed to cell phone radiation; more than a doubling in the risk of rare neuro-epithelial brain tumors among cell phone users compared to non-users; and a statistically significant correlation between the side of the head where cell phones are used and the location of tumors among cell phone users. Any one of these findings, had they been completed in the context of mandated pre-market testing prior to 1984, would have prevented cell phones from making it into the market place**. At the conclusion of the program in 1999, we recommended to both the cell phone industry and the FDA that a safety warning…. be issued to cell phone users. No government or industry protective steps were taken.***

· The FDA has continued to fail in its duty to protect consumers from cell phone dangers. Historically and presently, the FDA refuses to demand both that cell phones undergo safety testing prior to marketing and that the industry look for health problems post-market among cell phone users. Post-market health data collection is standard practice for manufacturers of all other radiation emitting devices. It appears that the FDA is not seeking these data because it lacks the political will to recall or ban cell phones that pose dangers. At any point, the FDA can exert its authority and require that protective steps be taken. However, if the FDA's history on cigarette regulation is any gauge – the time lag between the Surgeon General's warning on cigarette packs in the 1960s and the FDA's first real regulatory action taken in 2009 was more than fifty years – consumers will be left unprotected and on their own for many years to come…

*· The FDA has de facto abdicated its consumer safety responsibility regarding cell phones to the FCC, an agency with no statutory safety authority. While the FCC has the duty to ensure fair and balanced use of the airwaves, the Congress has never seen fit to empower the FCC with safety duties. Even under its far-reaching 1996 revisions to the Telecommunications Act, the Congress limited the FCC authority to publishing emission guidelines that companies must meet in order to obtain a license to sell specific phones. That testing for Specific Absorption Rate (SAR) is done by the industry itself with results submitted to the FCC on a voluntary and selective basis. The FCC does no post-market field-testing to ensure that those emission guidelines are met after phones are put into commerce. The 'honor system' is in place with the 'fox guarding the henhouse' for all practical purposes. **Most importantly, however, is that the FCC's emission guidelines are not predictive of consumer safety. Promulgated in 1996 for digital phones and in 1997 for all other wireless devices, the emission guidelines are based on thermal data (harkening back to the microwave oven studies of the 1980s) and have been widely dismissed by the public health community as having no relevance to the pathological mechanisms through which cell phones do their damage."***

IX. The cell phone industry is blatantly disregarding FCC's mandate that consumers must be informed of the separation distance necessary for compliant use

On page 56, the CTIA comments, "CTIA considers Supplement C's body-worn device separation requirement an issue of proper use and operation, as opposed to one of health and safety." And, they go on and try to make the case that the mandate that consumers are made aware of the required separation distance necessary to comply with simple operation procedures is not necessary. On page 57, the CTIA makes another unfounded and outrageous claim, "….because such disclosures are discretionary…" This is wishful thinking on their part as the rules are very clear that these disclosures are not discretionary. And, if the current Commission staff have been convinced that these consumer disclosures are merely "suggestions" for industry – they need to take a look at their own rules:

FEDERAL COMMUNICATIONS COMMISSION FCC 96-326
Washington, D.C. 20554 In the Matter of "Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation"
ET Docket No. 93-62

REPORT AND ORDER Adopted: August 1, 1996;

69. For purposes of evaluating compliance with localized SAR guidelines, portable devices shall be tested or evaluated based on "standard" operating positions or conditions. ***In situations where higher exposure levels may result from unusual or inappropriate use of the device, instructional material should be provided to the user to caution against such usage.***

Seventeen years ago, it was inconceivable that consumers would be wearing and using cell phones closer than 2.5 cm from their bodies. When rules were adopted in 1996, making calls with a cell phone radiating against breast tissues, or tucked into breast and pants pockets would have been considered an "unusual or inappropriate use of the device." Clearly, the mention of "higher exposure levels" is in direct reference to a potential health or safety risk. Therefore, the rule states that "instructional material should be provided to the user to caution against such usage." The word "should" can not be interpreted to mean that this disclosure is "discretionary" as it is obviously intended to be a requirement of manufacturers being granted authorization.

The wireless industry has pulled the wool over the eyes of OET staff for years, convincing them that this disclosure is merely a suggestion, when in fact, disclosure of the necessary separation distance for safe usage is clearly a regulatory mandate that has been blatantly disregarded by the wireless industry, with absolute impunity.

In addition to the above referenced rule, please refer to the following FCC document:

FCC - OET EAS Form 731 Grant of Equipment Authorization

"…***End-users must be informed of the body worn operating requirements for satisfying RF exposure compliance***."

This OET document maintains the original intent of the rule that consumers must be informed of the necessary separation distance – and that disclosure of this information is mandated as a condition of compliance.

The FCC must uphold its regulatory duty to protect citizens from the known health risks of microwave exposure and stop colluding with industry to "pretend" that these disclosures are not mandatory. And, with growing evidence that the current standards are set as much as 1,000 times higher than the levels now thought to cause concerning health impacts – it is imperative that, at the very least, industry must be held accountable for PROPERLY informing consumers that wearing and using cell phones closer than the testing distance will expose them to microwave radiation that may exceed the standard.

And, in reference to CTIA's ridiculous claim on page 59 that "body-worn disclosures may simply create unnecessary confusion on the part of the consumer….." – consumers are not so easily confused and will understand the simple caution to not wear or use a cell phone in a pocket, or tucked into a bra. And, yes, this may call into question the safety of cell phones. But, the truth is that there IS question about their safety, and until industry can prove their products are safe to use as they are designed and marketed – to be used in pockets or tucked into bras – failing to disclose federally mandated safety instructions is not only unethical, but it is a violation of consumer protection law.

Beginning on page 56, the CTIA comments span 5 pages of arguments as to why the current, obsolete testing separation distance allowance "more accurately mimic(s) real-world conditions than a zero-spacing protocol." This is preposterous. The obvious "real world conditions" ARE zero-spacing between radiating structure and the torso. Very few people use holsters any more; the typical way cell phones are being used and carried is in a shirt or pants pocket, or tucked into a bra or waistband. And, for young people with developing neurological and reproductive systems, the "real-world" condition of having a cell phone directly on their body for 10 hours a day is clearly NOT taken into consideration with today's standard. Many people wear a cell phone in a bra or pocket all day and make and receive calls while connected to Bluetooth with the radiating structures directly against the tissues of the body. There are no studies that show that this "abnormal usage" is safe.

It is really quite simple for the FCC in the issue of whether the testing protocol should be changed to zero-spacing. There is no other option other than requiring that all cell phones be tested with zero spacing as this is how cell phones are being used today:

1. The FCC's own rule states that "portable devices shall be tested or evaluated based on 'standard' operating positions or conditions." (see below)
2. Zero spacing is the typical (i.e.; standard) usage for which these products are designed and marketed to consumers. No one sees the separation distance safety disclosures deceptively hidden in the fine print of user manuals; the FCC is not enforcing its mandate that "end users must be informed" so consumers will continue to use cell phones in ways that expose them to microwave radiation that may exceed the standard.

FEDERAL COMMUNICATIONS COMMISSION FCC 96-326
Washington, D.C. 20554 In the Matter of "Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation"
ET Docket No. 93-62

REPORT AND ORDER Adopted: August 1, 1996;

69. ***For purposes of evaluating compliance with localized SAR guidelines, portable devices shall be tested or evaluated based on "standard" operating positions or conditions.*** In situations where higher exposure levels may result from unusual or inappropriate use of the device, instructional material should be provided to the user to caution against such usage.

The FCC has no other option but to change the obsolete cell phone compliance testing protocol to require zero separation in order to simulate today's "standard operating positions." And, until this is changed, the FCC should enforce the current mandate that cell phone manufacturers MUST inform consumers not to wear or use their cell phones with backs of the phones closer than the necessary separation distance or risk being exposed to microwave emissions that may exceed the safety standard.

X. FCC must require labels or "flash" warnings to adequately inform consumers to never wear or use cell phones in pockets or tucked into bras

The "fine print safety warnings" currently being hidden in user manuals are mandated to be made visible to consumers as a condition for compliance – but, industry is disregarding this directive and current FCC staff is doing nothing to enforce the rule.

Therefore, FCC must require that the disclosures appear on a sticker attached directly to the phone or in a "flash" message that appears on every cell phone upon powering up.